Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claims 1, 3-9, 11-16, 21-25, and 27. Please amend claims 10, 17-19, 26, 28-30, and 32-34, and add new claims 36-39, as follows:

Listing of Claims:

1-9. (Cancelled)

10. (Currently amended) A method of calculating a texture coordinate for a texture map having a size from an input texture coordinate value located in one of a plurality of predefined input ranges, comprising:

concurrently calculating a plurality of signed texture coordinate values corresponding to the plurality of predefined input coordinate ranges, where the sign of the input texture coordinate value is negative, calculating a first value A = [input + (1 * tex_size)] and a second value B = [input + (2 * tex_size)], and otherwise, calculating a first value A = [input - (1 * tex_size)] and a second value B = [input + (2 * tex_size)], input is the input texture coordinate value and tex_size is the size of the texture map ~~from the input texture coordinate value and the size of the texture map in accordance with the sign of the input coordinate value~~; and

selecting an output texture coordinate from the plurality of concurrently calculated texture coordinate values and the input texture coordinate value, where the sign of the input texture coordinate value is negative, selecting B when (A < 0), otherwise selecting A as the corresponding texture coordinate, and where the input texture coordinate value is equal to zero or the sign of the input texture coordinate is positive, selecting the input texture coordinate value when (A < 0), selecting A when (B < 0), and selecting B otherwise ~~based on the sign of the input texture coordinate and the signs of the calculated texture coordinate values~~.

11-16. (Cancelled)

17. (Currently amended) The method of claim 38 [[16]] wherein clamping the selected output texture coordinate comprises clamping the output texture coordinate to an edge value along an edge of the texture map.

18. (Currently amended) The method of claim 38 [[16]] wherein clamping the selected output texture coordinate comprises clamping the output texture coordinate to a border value one texel beyond the texture map.

19. (Currently amended) The method of claim 38 [[16]] wherein clamping the selected output texture coordinate comprises clamping the output texture coordinate to a coordinate value half of a texel beyond an edge of the texture map.

20. (Original) The method of claim 10 wherein calculating and selecting are repeated for each axis of the texture map.

21-25. (Cancelled)

26. (Currently amended) A texture addressing circuit for calculating texture coordinates for a texture map having a size and an acceptable range of input coordinate values, the circuit comprising:

a plurality of coordinate calculation circuits corresponding to a plurality of input coordinate ranges defined outside of the acceptable range for both negative and positive input coordinate values, each coordinate calculation circuit coupled to receive a signal corresponding to the sign of the input coordinate value and a respective texture size value corresponding to a multiple of the size of the texture map, each coordinate calculation circuit providing a respective signed coordinate output value calculated from the input texture coordinate value and the size of the texture map, a first and a second coordinate calculation circuit of the plurality including a negating circuit configured to generate an output value corresponding to a positive or negative

respective texture size value in accordance with the sign of the input coordinate value, and further including a summing circuit having a first input coupled to negating circuit and a second input at which a second input value is provided, the summing circuit configured to generate an output corresponding to the sum of the output value of the negating circuit and a value received by at the second input;

a selection circuit coupled to concurrently receive as input values the input coordinate and the signed coordinate output values of the plurality of coordinate calculation circuits, the selection circuit selecting one of the input values as an output texture coordinate value; and

select logic coupled to the selection circuit and further coupled to receive input signals corresponding to the sign of the input coordinate value and the signs of the coordinate output values, the select logic providing a selection signal commanding the selection circuit to select one of the input values as the output texture coordinate in accordance with the received input signals.

27. (Cancelled)

28. (Currently amended) The addressing circuit of claim 26 [[27]] wherein the negate circuit comprises:

an inverter having an input coupled to receive the signal corresponding to the sign of the input coordinate value and further having an output coupled to the summing circuit to provide a carry-in bit; and

an exclusive OR (XOR) gate having a first input coupled to the output of the inverter and a second output coupled to receive the respective texture size value, the XOR gate further having an output coupled to the summing circuit.

29. (Currently amended) The addressing circuit of claim 26 [[27]] wherein the first and second coordinate calculation circuits receive the texture size values tex_size and 2* tex_size, respectively, where tex_size is the size of the texture map, and for the first and second coordinate calculation circuits, the second input of the summing circuits are coupled to receive

the input coordinate value and the output of the summing circuits are coupled to provide a respective coordinate output value to the selection circuit, the select logic generating a selection signal to select the output texture coordinate as follows:

if the sign of the input coordinate value is negative, and

if the sign of the coordinate output value of the first coordinate calculation circuit is negative, select the output of the second coordinate calculation circuit as the output texture coordinate,

otherwise select the output of the first coordinate calculation circuit as the output texture coordinate, and

if the sign of the input coordinate is not negative, and

if the sign of the coordinate output value of the first coordinate calculation circuit is negative, then select the input coordinate as the output texture coordinate,

otherwise,

if the sign of the coordinate output value of the second coordinate calculation circuit is negative, select the output of the first coordinate calculation circuit as the output texture coordinate,

otherwise select the output of the second coordinate calculation circuit as the output texture coordinate.

30. (Currently amended) The addressing circuit of claim 26 [[27]] wherein the first and second coordinate calculation circuits receive the texture size values tex_size and 2* tex_size, respectively, where tex_size is the size of the texture map, and for the first and second coordinate calculation circuits, the second input of the summing circuits are coupled to receive the input coordinate value and the output of the summing circuits of the second coordinate calculation circuit is coupled to provide a coordinate output value to the selection circuit, the addressing circuit further comprising:

a subtracting circuit having a first input coupled to the output of the summing circuit of the first coordinate calculation circuit and a second input coupled to receive the tex_size value, the subtracting circuit providing to the selection circuit at an output the difference

of the output of the summing circuit of the first coordinate calculation circuit and the tex_size value.

31. (Original) The addressing circuit of claim 30 wherein the select logic generates a selection signal to select the output texture coordinate as follows:

if the sign of the input coordinate value is negative, and

if the sign of the coordinate output value of the first coordinate calculation circuit is negative, select the output of the second coordinate calculation circuit as the output texture coordinate,

otherwise select the output of the subtracting circuit as the output texture coordinate, and

if the sign of the input coordinate is not negative, and

if the sign of the coordinate output value of the first coordinate calculation circuit is negative, then select the input coordinate as the output texture coordinate,

otherwise,

if the sign of the coordinate output value of the second coordinate calculation circuit is negative, select the output of the subtracting circuit as the output texture coordinate,

otherwise select the output of the second coordinate calculation circuit as the output texture coordinate.

32. (Currently amended) The addressing circuit of claim 26 [[27]] wherein the first and second coordinate calculation circuits receive the texture size values tex_size and 2* tex_size, respectively, where tex_size is the size of the texture map, and for the second coordinate calculation circuit the second input of the summing circuit is coupled to receive the input coordinate and the output of the summing circuit is coupled to provide a coordinate output value to the selection circuit, for the first coordinate calculation circuit the second input of the summing circuit is coupled to receive a 1LSB binary value having 1 as its least significant bit, the addressing circuit further comprising:

a subtracting circuit having a first input coupled to the output of the summing circuit of the first coordinate calculation circuit and a second input coupled to receive a null value, the subtracting circuit providing the difference of the sum value and the null value to the selection circuit.

33. (Currently amended) The addressing circuit of claim 26 [[27]] wherein the select logic generates a selection signal to select the output texture coordinate as follows:

if the sign of the coordinate output value of the second coordinate calculation circuit is negative, select the output of the subtracting circuit as the output texture coordinate,

otherwise select the input coordinate as the output texture coordinate.

34. (Currently amended) The addressing circuit of claim 26 [[27]] having a clamping mode and wherein the second coordinate calculation circuit of the plurality receives the texture size value 2 * tex_size, where tex_size is the size of the texture map, and the second input of the summing circuit of the second coordinate calculation circuit is coupled to receive the input coordinate value and the output of the summing circuit of the second coordinate calculation circuit is coupled to the selection circuit, and

the first coordinate calculation circuit of the plurality receives through a first multiplexer as the texture size value either tex_size or 2 * tex_size, and the second input of the summing circuit of the first coordinate calculation circuit is coupled to receive through a second multiplexer either the input coordinate value or a 1LSB binary value having 1 as its least significant bit, the output of the summing circuit of the first coordinate calculation circuit is coupled to provide a coordinate output value to the selection circuit,

the addressing circuit further comprising a subtracting circuit having a first input coupled to the output of the summing circuit of the first coordinate calculation circuit and a second input coupled to receive through a third multiplexer either the tex_size value or a null value, the subtracting circuit providing to the selection circuit at an output the difference of the output of the summing circuit of the first coordinate calculation circuit and the value received by the second input, the first, second, and third multiplexers providing the respective signals in accordance with the clamping mode.

35. (Original) The addressing circuit of claim 34, further comprising a clamping circuit coupled to receive the output texture coordinate of the selection circuit when in the clamping mode and provide a clamped output texture coordinate.

36. (New) A method of calculating a texture coordinate for a texture map having a size from an input texture coordinate value located in one of a plurality of predefined input ranges, comprising:

concurrently calculating a plurality of signed texture coordinate values corresponding to the plurality of predefined input coordinate ranges, where the sign of the input texture coordinate is negative, calculating a first value A = [input + (1 * tex_size)] and a second value B = [input + (2 * tex_size)], otherwise, calculating a first value A = [input - (1 * tex_size)] and a second value B = [input + (2 * tex_size)], and further calculating a third value C = (tex_size - A), input is the input texture coordinate value and tex_size is the size of the texture map; and

selecting an output texture coordinate from the plurality of concurrently calculated texture coordinate values and the input texture coordinate value, where the sign of the input texture coordinate is negative, selecting B when (A < 0), otherwise selecting C as the output texture coordinate, and where the input texture coordinate is equal to zero or the sign of the input texture coordinate is positive, selecting the input texture coordinate when (A < 0), selecting C when (B < 0), and selecting B otherwise.

37. (New) The method of claim 36 wherein calculating and selecting are repeated for each axis of the texture map.

38. (New) A method of calculating a texture coordinate for a texture map having a size from an input texture coordinate value located in one of a plurality of predefined input ranges, comprising:

concurrently calculating a plurality of signed texture coordinate values corresponding to the plurality of predefined input coordinate ranges, where the sign of the input texture coordinate is negative, calculating a first value A = [2 * tex_size] and a second value B =

[input + (2 * tex_size)], otherwise, calculating a first value A = [- 2 * tex_size + 1LSB] and a second value B = [input - (2 * tex_size)], and further calculating a third value C = (0 - A), input is the input texture coordinate value, tex_size is the size of the texture map, and 1LSB is a binary value equal to 1 and having a bit length the same as the tex_size;

selecting an output texture coordinate from the plurality of concurrently calculated texture coordinate values and the input texture coordinate value, where the sign of the second value B is negative, selecting C as the output texture coordinate, and otherwise, selecting the input texture coordinate as the output texture coordinate; and

clamping the selected output texture coordinate to a clamped value.

39. (New) The method of claim 38 wherein calculating and selecting are repeated for each axis of the texture map.